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## PATENT ABSTRACTS OF JAPAN

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(54) HANDY TYPE SCANNER USING PLASTIC OPTICAL FIBER FOR READING COLOR IMAGE

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(57) Abstract:

**PROBLEM TO BE SOLVED:** To provide a handy type scanner using plastic optical fiber for reading a color image without providing any electric element in a scanner head.

**SOLUTION:** The scanner head is connected away from an opto-electronic module 12 by an optical fiber aggregate 28. The module 12 is provided with the sensor of one-dimensional arrangement 12a or two-dimensional arrangement. An optical signal reflected from an original and transmitted through the optical fiber assembly is converted to an electric signal by that sensor. By utilizing side coupling, light transmitted from a light source and light reflected from the original can be passed through the same optical fiber for each pixel. Any beam splitter is not required. The optical fiber is used for transmitting the optical signal for scanning an image or detecting the position of the scanner head.

